



**You have downloaded a document from
RE-BUS
repository of the University of Silesia in Katowice**

Title: The influence of age and L2 on third language acquisition in a corporate environment

Author: Dorota Lipińska

Citation style: Lipińska Dorota. (2017). The influence of age and L2 on third language acquisition in a corporate environment. „Theory and Practice of Second Language Acquisition” (Vol. 3 (1) : (2017), s. 7-27).



Uznanie autorstwa - Użycie niekomercyjne - Bez utworów zależnych Polska - Licencja ta zezwala na rozpowszechnianie, przedstawianie i wykonywanie utworu jedynie w celach niekomercyjnych oraz pod warunkiem zachowania go w oryginalnej postaci (nie tworzenia utworów zależnych).



UNIWERSYTET ŚLĄSKI
W KATOWICACH



Biblioteka
Uniwersytetu Śląskiego



Ministerstwo Nauki
i Szkolnictwa Wyższego



Dorota Lipińska

University of Silesia in Katowice, Poland

The Influence of Age and L2 on Third Language Acquisition in a Corporate Environment

Abstract

The role of age factor in SLA has been systematically studied by numerous psycholinguists for many years (Ellis, 1994), starting from the Critical Period Hypothesis (first proposed by Penfield and Roberts, 1959, and then popularized by Lenneberg, 1967) and continuing until today. However, sometimes learners' age is not the only potential difficulty. The situation becomes even more complicated in the case of L3 acquisition when not only all factors influencing SLA are active, but also numerous other processes affect TLA.

The aim of this study was to analyze the influence of the age factor and learners' L2 on TLA in a corporate environment. A group of subjects from an international company situated in the south of Poland agreed to participate in the study. They were native speakers of Polish learning L3-German in their company, but varying in terms of L2 (English and Russian), as well as in terms of age. The participants were between 28 and 62 years old. The results of regularly administered tests focusing on various language skills, obtained by the learners were compared. The subjects also completed questionnaires concerning difficulties they encountered while learning German. Both information sources delivered intriguing results contributing to the area of TLA and age-related research.

Keywords: age, third language acquisition, in-company teaching, foreign language learning

The Age Factor in SLA

The age factor in Second Language Acquisition is one of the most widely discussed elements affecting this process and it has been systematically studied by numerous psycholinguists for many decades (e.g., Jackiewicz, 2009). It is widely known that the tendency to acquire novelties changes during the

lifetime (Ellis, 1994). A natural question which arises when one considers the age factor is the matter of a possible critical period for SLA (e.g., Singleton & Leśniewska, 2012). For instance, for many years it has been demonstrated that “earlier is better” for learning a second language (Flege & MacKay, 2011).

These kinds of opinions are inextricably connected to the Critical Period Hypothesis which in fact has been the subject of a long-standing debate (in both general linguistics and language acquisition studies) over the extent to which the ability to acquire language is actually biologically linked to age. This hypothesis claims that there is an ideal period of time to acquire language in a linguistically rich environment and that after this time ‘window’ further language acquisition becomes much more difficult. The hypothesis was first proposed by Penfield and Roberts (1959) and then popularized by Lenneberg (1967) who stated that there are maturational constraints on the time a first language can be acquired. The language acquisition relies on neuroplasticity. If language acquisition does not occur by puberty, some aspects of language can still be learnt but full mastery is impossible to be achieved. Although the theory constituted the starting point for extensive research in studies on L1 acquisition (see, e.g., Singleton & Ryan, 2004), it has often been extended to a critical period for the second language acquisition, however this application is much more controversial. The most popular interpretations of the Critical Period Hypothesis in SLA are the following. Firstly, after a certain maturational point, second language learners are no more able to achieve the native-like proficiency in their target language. Moreover, they need to undertake more tremendous effort in order to achieve good results in language learning. What is most pessimistic, is the sharp decline in second language learning potential observed after the age of puberty (Singleton & Leśniewska, 2012). Certainly, it has been often observed that L2 older learners rather rarely achieve the native-like fluency which younger learners display more frequently, despite commonly progressing faster than children in the initial stages. It may be that it is better to start learning a new language at a young age; however, there are also numerous exceptions of individuals who mastered L2 in adulthood (Singleton, 1995).

Nevertheless, it cannot be forgotten that children lack the linguistic experience, strategies, and knowledge which adults possess and which can be useful in learning a new language. An individual who began learning English at the age of two, after 20 years achieves a similar level of competence like somebody who started learning the same language intensively at the age of sixteen after six years. Thus, it is very difficult to decide whether children are able to achieve the same level in a new language faster than teenagers or young adults (Arabski, 1997; Jackiewicz, 2009).

Moreover, there is a constant question when exactly this critical period finishes. For instance, Aram et al. (1997, p. 85) noticed that “the end of the critical period for language in humans has proven [...] difficult to find, with

estimates ranging from 1 year of age to adolescence.” In literature one can find various proposals concerning this matter. While Piske et al. (2001) suggest it is 12 years of age, others place it at 15 years of age (e.g., Zbrocki, 1966) or even 6 (e.g., Sikorski, 2002).

Another topic for dispute is what language skills may be affected by the critical period (see Singleton, 2005). Most researchers focus on L2 pronunciation and agree that language learners who start to be exposed to a target language after the age puberty will not ever “pass themselves off as native speakers phonologically” (Scovel, 1988, p. 185). The same view is presented by, for example, Long (1990) or Wysocka (2007). Nonetheless, there are also opposite opinions and studies (e.g., Tarone, 1978) describing adult language learners who managed to achieve perfect pronunciation in their target language. Also Porzuczek and Rojczyk (2010) noticed that the results obtained from the latest acoustic studies suggest that human capability of learning L2 sound systems and their components is not diminished or lost after the age of puberty and that older language learners are capable of acquiring foreign vowels and consonants at a good level. Other skills that are thought to be under the influence of the critical period are L2 morphology and syntax (e.g., Long, 2007).

However, there is no clear explanation whether the critical period really affects those skills. There were numerous studies on language learners who achieved very high levels of L2 proficiency in spite of starting learning their target language at older age (e.g., Birdsong, 1992; Singleton & Lengyel, 1995; Bongaerts et al., 2000; Bongaerts, 2003; Muñoz & Singleton, 2007; Kinsella, 2009; Flege & MacKay, 2011). Hyltenstam and Abrahamsson (2000) notice that there are no described instances of such learners who would behave in every detail like native speakers of a particular language, but still there are no early L2 learners who would either. What most researchers seem to agree on, is the opinion that later language learning requires more effort and conscious learning (e.g., Lenneberg, 1967; Breathnach, 1993; Bongaerts, 1999). Nevertheless, it may be connected not with the critical period for language acquisition, but with the process of increasing importance of conscious learning in all domains, linked to one’s cognitive development (e.g., Feldman, 2009).

What appears to be the most reasonable approach to the age factor in SLA, is a new tendency to change the scope of interest a little. Instead of focusing on only neurobiological maturational factors, more and more researchers are starting to examine a complex combination of social, environmental, and affective factors reflecting multidimensionality of SLA (Singleton & Muñoz, 2011; Singleton & Leśniewska, 2012).

Language Transfer

Transfer of linguistic properties from one's mother tongue into the target language is said to be one of the most obvious and at the same time pervasive features of the process of second language acquisition (Towell & Hawkins, 1994; Arabski, 1997; Arabski, 2006). The discussion on this topic began with the work of American linguists, Robert Lado and Charles Fries, in the 1940s and 1950s. Although the work of Lado and Fries was obviously a kind of catalyst for subsequent research, one can argue that serious thinking about cross-linguistic influences could be dated even to the nineteenth century historical linguistics (Odlin, 1989; Gass & Selinker, 2008). Since the beginning of the twentieth century there has been a great acceptance of the idea that native language and its characteristics could seriously influence the process of SLA (Odlin, 1989; Bley-Vroman, 1990; Bohn, 1998). For many years transfer was perceived as the major source of several difficulties for L2 learners (Richards & Sampson, 1974; Broselow, 1984). At the very beginning of the research in this subject potential difficulties were expected to happen only in those areas of two languages where they were most visibly different (Arabski, 1997). At the same time, the structural distance between languages was thought to be an important factor either facilitating or hindering second language acquisition (Crystal, 1998). SLA was supposed to be dealing with and overcoming those differences. Yet, later research showed that the differences and similarities between two languages are usually not comparable to difficulties in acquiring one of them as the second language and that transfer itself is a very complex and deep phenomenon (Arabski, 1997; Crystal, 1998).

Moreover, it turned out that there are different kinds of transfer and that it may be either positive or negative. In the case of visible similarities between the mother tongue and the target language one could speak about a phenomenon of positive transfer (Ellis, 1994; Arabski, 2006). From the behaviorist perspective positive transfer is helpful in acquiring second language habits (Littlewood, 1994). Yet, the differences and contrasting elements between languages usually tend to contribute to negative transfer (Ellis, 1994; Arabski, 2006). Negative transfer of L1 habits hinders a learner's acquisition of a target language (Littlewood, 1994). It was observed that not only structures, vocabulary, and grammar rules are transferred in SLA, but also other habits from L1 may undergo this process (Corder, 1967).

Another unarguable issue is the fact that transfer changes as learners' interlanguages develop (Arabski, 1997). According to Towell and Hawkins (1994) the acquisition of second languages and the development of one's interlanguage is typically staged. At beginner and elementary levels, students tend to be very sensitive to the influence of their mother tongue. When their interlanguage

changes, develops, and becomes more similar to L2, the influence of L1 is usually less visible. On the other hand, the situation is more complex, because, although advanced L2 learners are obviously less sensitive to L1 influence in everyday conversations and simple sentences, they also use more complicated language structures and forms which again can be significantly affected by their mother tongue thus showing again examples of transfer (Arabski, 1997; Towell & Hawkins, 1994). Generally speaking, language transfer is used to simplify L2 structures and their use, not to complicate them (Arabski, 2006).

What is also essential is the fact that the mother tongue and the target language need to be genetically connected to each other to allow the occurrence of transfer between them (Arabski, 1997). Interference is likely to appear when there is a crucial similarity measure between the first and the second language (Ellis, 1994). Depending on how close the languages are and what kind of similar characteristics they share, the transfer will occur in different situations and different structures (Arabski, 1997; Towell & Hawkins, 1994). Although it seems that transfer may affect all linguistic levels, such as phonetics, phonology, syntax, morphology, lexicon and discourse (Towell & Hawkins, 1994), it should be added that not every structure from L1 may be transferred to L2. Here the notion of transferability is a very significant factor. It is said that only those structures which are psycho-linguistically neutral can be transferred. It is very interesting that L2 students do not tend to transfer, for example, idioms (Arabski, 1997; Kellerman, 1977). Still, structures from L1 which sound naturally in L2 are very frequently transferred. It was also proven that transfer may be observed much more often in informal situations, in which a speaker does not focus on the form, but on conveying the sense of the message itself (Arabski, 1997, 2006). One cannot also forget that language transfer does not occur only between L1 and L2. In the case of L3 acquisition, the situation becomes even more complicated and possibilities of interlanguage transfer multiply (Arabski, 2006).

Third Language Acquisition

First of all, it has to be said that for many years acquisition of third or any additional language was simply classified as a part of SLA (e.g., Cenoz, 2000; Jessner, 2006). However for the last twenty years Third Language Acquisition (TLA) has been described as a separate process, clearly different from SLA (Chłopek, 2011), and this difference will be important for the purpose of this article. When one compares SLA and TLA it is easy to notice that there are copious differences between these processes. However, the main and probably

the most crucial one, is the number of languages (or interlanguages) previously acquired by language learners. It is so important as those languages are likely to interact with one another. Another factor which cannot be ignored is the order of language acquisition in TLA. The explanation is simple: while during SLA the number of such configurations is quite narrow—either two languages may be acquired synchronously or L2 after L1, TLA allows for more complex combinations (e.g., three languages one after another, L1 + L2 first and then L3, L1 first and then L2 + L3 or even all three languages at the same time). The third very influential factor is one's fluency in each of the acquired languages. Having looked at all those factors altogether, one may notice that third language acquisition is a more complex and more dynamic phenomenon than SLA (Chłopek, 2011).

Transfer in TLA may also be more complicated and complex than in SLA. It is easily noticeable when one remembers that SLA allows for L1→L2 transfer or L2 intralingual interference (and of course, L2→L1 but this option is not as common as the two previous variants), while in TLA, because all acquired languages may influence each other in any possible configuration, the number of combinations is much higher. For instance, for three languages the transfer possibilities could be following: L1→L2, L1→L3, L2→L3, L2→L1, L3→L2 or L3→L1 (Chłopek, 2011; Ionin et al., 2011). Moreover, although it does not occur so frequently, also various language combinations may be a source of language transfer (e.g. L1 + L2→L3, L1 + L3→L2 or even L2 + L3→L1) (Chłopek, 2011). What is also interesting, some studies showed that various languages create various interlingual effects and, for instance, it is a frequent case that L2 affects L3 in ways that L1 never does (Odlin, 2005).

Therefore, both L1 and L2 may affect L3. The frequent question is which of those languages is a more frequent source of transfer. Although rather considerable research has been conducted in this matter, the results are not uniform. Depending on a research project, combinations of analyzed languages and examined language aspects or skills, some researchers proved that in the case of L3 acquisition, L2 may serve as a predominant source of transfer (e.g., Hammarberg, 2001; Treichler et al., 2009) but other studies showed that it could be one's mother tongue (e.g., Chumbow, 1981) as well. Nevertheless, a simple order of acquisition cannot be regarded as an exclusive explanation in TLA studies. A typological distance (based on classifying languages according to their structural characteristics) between the analyzed languages is thought to be even more significant than the order in which the languages were learnt (Letica & Mardešić, 2007; Lammiman, 2010; Chłopek, 2011). For example, De Angelis and Selinker (2001) discovered in their study that typological similarity between non-native languages is likely to provoke non-native transfer in non-native production. This has been proven by other scholars. For instance, Lipińska's (2014a) study on lexical transfer in L3 production showed that typologically

closer L2-English affected L3-German to a more significant extent than L1-Polish did. Similar situation occurred in Lipińska's (2014b) study on foreign vowel production where again L2-English affected L3-German to such a great degree that the analyzed L2 and L3 vowel categories merged completely.

While explaining why some languages are transferred and other ones are not, numerous variables are taken into consideration, such as proficiency and fluency in both L2 and L3 (e.g., Bardel & Lindqvist, 2007; De Angelis, 2007; Lindqvist, 2010), frequency of use, a degree of formality or age of onset (e.g., De Angelis, 2007; Falk & Bardel, 2010). Nevertheless, one factor has recently taken the lead. Researchers have proven in many studies that L2 can exert a stronger effect on L3 than L1 (e.g., Bardel & Falk, 2007; Bohnacker, 2006; Falk & Bardel, 2011; Leung, 2005; Rothman & Cabrelli Amaro, 2010) which required an explanation. It has been discovered that it may be caused by a so-called L2 status factor. This factor has been thought to determine the transfer source (L1 or L2) in studies on L3 vocabulary and pronunciation (e.g., Cenoz, 2001; De Angelis, 2007; Llama et al., 2007). But what exactly is it? It can be interpreted as "a desire to suppress L1 as being 'non-foreign' and to rely rather on an orientation towards a prior L2 as a strategy to approach the L3" (Hammarberg, 2001, pp. 36–37). De Angelis (2005) clarified that non-native languages are classified as "foreign language" category in learners' minds, and it creates a cognitive association between them. L1 does not sound "foreign," so it is usually eliminated from this association. This kind of classification is called an "association of foreignness" (De Angelis, 2005, p. 11). It may favor non-native transfer, hence L2 is given a privileged status. Such a situation was observed even earlier by other scholars, for instance by Meisel (1983), who named it a "foreign language effect" (see also Ecke & Hall, 2000, where the phenomenon has a German name "Fremdspracheneffekt").

Learning Foreign Languages in a Corporate Environment

The last factor which may significantly influence the results in the case of the current study and which thus has to be mentioned is the company environment in which language learning may take place. Unfortunately research on a corporate learning and teaching is really scarce. Chong (2013) wrote an article, and Lipińska (in press) conducted a study on an in-company teaching foreign languages from a teacher's perspective. Although a learner's perspective would be more useful in our case, some general conclusions may be drawn also concerning language learners.

First of all, both Chong and Lipińska noticed that in-company language learners attend L2 classes irregularly and it is very difficult to meet the same group of learners at two consecutive classes. Some of the course participants come to classes very rarely. Secondly, it frequently happens that they do not do their homework. It is especially problematic as in most cases in-company language classes are held once a week and without learners' own work it is difficult to expect any significant progress. What is more, a lot of course participants who attend in-company classes are not very motivated since they do not pay for their language classes and their progress is not externally assessed.

Another interesting article which contributes to the topic was written by Newton and Kusmierczyk (2011). The authors noticed that in-company courses often fail to meet the managers' and participants' expectations as they do not deliver the required opportunities for language socialization, include inappropriate, not adjusted materials and classes are frequently focused on decontextualized language study and fail to address language needs directly relevant to the workplace.

All these factors considered, one can expect that, at least in some cases, in-company language learning/teaching may not be as effective as language learning/teaching in other environments (e.g., language schools where course participants pay for courses on their own and come of their own free will).

Current Study

The current study is a part of more extensive research on in-company language learning and teaching. The research consists of multiple stages, each of them focused on a different aspect of the subject—ranging from various factors affecting the process to teachers' and learners' opinions on the matter.

Rationale and Study Design

The aim of this study was to analyze the influence of two factors (first of all, learners' age and, secondly, their previously learnt L2) on TLA in a corporate environment. According to a popular belief, older language learners could be expected to achieve worse results than their younger groupmates. However, at the same time, a typologically closer L2 might exert a stronger transfer on L3 than an L2 from a different branch of a language family. What is more, learning a foreign language in a company environment may be less effective than in other environments and general results obtained by in-company lan-

guage learners can be expected to be considerably low. Therefore, the following questions arise:

Do younger learners achieve better results?

Does L2-English affect acquisition of L3-German to a larger extent than L2-Russian?

Can in-company learners achieve as good results as those learners who attend courses in language schools?

Study Participants

A group of subjects from an international company situated in the south of Poland agreed to participate in the study. They were native speakers of Polish learning L3-German in their company, but varying in terms of an L2 (either English or Russian). The study participants consisted of thirty-two people, six women and twenty-six men. They were between 28 and 62 years old. They attended German courses at A2+ and B1 levels according to the Common European Framework of Reference for Languages (2011). What is important is the fact that all subjects started learning German in their company from scratch, having no prior experience in learning this language. All of them were from the same region of Poland (Silesia and Zagłębie, southern Poland) and thus shared a similar language background.

Methodology

The results of the end-of-year tests in various language skills (grammar, vocabulary, reading comprehension, listening comprehension, and speaking), obtained by the learners at the end of 2015, were compared. Mean results and standard deviations were calculated. For the purpose of the analysis, the subjects were divided twice into contrasting groups. Firstly, they were divided into two groups according to their age. The first group of study participants comprised learners who were <50 years old (18 people). The other group of subjects consisted of learners who were ≥50 years old (14 people). Secondly, the subjects were divided into two groups once again, this time according to their L2 which they had learnt prior to the company course in German. In this case the first group, with L2-English consisted of 15 subjects, while the other group, with Russian as an L2, comprised 17 study participants. Significant was the fact that all of them claimed not to have any knowledge of the other L2 in question. The subjects also completed questionnaires and wrote retrospective comments concerning difficulties they encountered while learning German.

Study Results

The following section presents the results of the current study. They are divided into three sections describing the effect of the age factor on TLA, the influence of subjects' L2s on their L3-German and the study participants' opinions concerning learning a third language.

The Age Factor

Table 1 presents the test results obtained by the study participants. For the purpose of this part of the analysis, they were divided into two groups of learners, according to their age. The first group consisted of younger learners who were less than 50 years of age. The other group comprised older learners who were 50 years old or more.

Table 1

The end-of-year test results obtained by the subjects, divided according to their age

Language skill	Group <50 (n = 18)				Group ≥50 (n = 14)			
	The worst result	The best result	The mean result	Standard deviation	The worst result	The best result	The mean result	Standard deviation
	%				%			
Grammar	20	100	72	17.44	40	100	80	16.95
Vocabulary	15	100	79	19.62	55	100	82	14.20
Reading comprehension	55	90	79	9.00	75	100	84	8.36
Listening comprehension	45	95	80	13.77	70	95	79	7.03
Speaking	30	95	83	14.14	60	95	81	9.92

As one can see, the results obtained by both younger and older subjects were quite similar. The differences in mean results in the case of all language skills were insignificant and reached the values between 1% and 8%. In three cases (grammar, vocabulary, and reading comprehension) the older learners even outperformed the younger ones, achieving slightly better results. The most noticeable difference was observed for grammar, where more than 50 learners achieved mean result at the level of 80%, while their younger groupmates were 8% worse, having the result at the level of 72%. However, the younger subjects were slightly better at listening and speaking.

Of course, these are mean values, and one ought to look at individual scores as well. It can be noticed that the differences between the best and the worst results were much bigger in the younger group. The results achieved by the older learners were more consistent.

In order not to rely on bare numbers, a two-way ANOVA was performed. It aimed at examining the effects of the age and L2 factors on acquisition of L3-German by the subjects. Table 2 presents the results for the age factor.

Table 2

The results of a two-way ANOVA for the age factor

Language skill		Sums of squares	Degrees of freedom	Mean squares	F-ratio	p-values
Grammar	Between	504.000	1	504.000	1.698	0.202
	Within	8,905.544	30	296.851		
	Total	9,409.544	31			
Vocabulary	Between	70.875	1	70.875	0.232	0.634
	Within	9,165.375	30	305.512		
	Total	9,236.250	31			
Reading comprehension	Between	196.875	1	196.875	2.584	0.118
	Within	2,285.565	30	76.185		
	Total	2,482.440	31			
Listening comprehension	Between	7.875	1	7.875	0.061	0.806
	Within	3,865.891	30	128.863		
	Total	3,873.766	31			
Speaking	Between	31.500	1	31.500	0.202	0.656
	Within	4,678.256	30	155.942		
	Total	4,709.756	31			

As one can see in Table 2, the results of ANOVA confirmed what had already been noticed in Table 1. Since all *p*-values were much greater than 0.05 (and we assume this number to establish the point of statistical significance), it can be undoubtedly stated that the differences between the two age groups were statistically insignificant.

The L2-Effect

The next part of the analysis presents the test results divided according to the subjects' L2s. It aims at analyzing whether there is any significant influence of an L2 on learning German as an L3. It is especially valuable, since one of the analyzed L2s (English) is typologically close to L3-German, and hence may be expected to be more influential than the other L2 (Russian) which is typologically more distant.

Table 3

The end-of-year test results obtained by the two groups of subjects, divided according to their L2s

Language skill	Group L2-English (n = 15)				Group L2-Russian (n = 17)			
	The worst result	The best result	The mean result	Standard deviation	The worst result	The best result	The mean result	Standard deviation
	%				%			
Grammar	20	100	70	18.19	40	100	80	15.49
Vocabulary	15	100	77	20.76	55	100	83	13.37
Reading comprehension	55	90	78	9.39	75	100	84	8.05
Listening comprehension	45	95	80	15.00	70	95	79	6.66
Speaking	30	95	82	15.33	60	95	83	9.34

As Table 3 illustrates, again there is no significant difference between the mean results obtained by the subjects with English as an L2 and the subjects with L2-Russian. The differences range from 1% to 10%. However, in the case of grammar, vocabulary, speaking, and reading comprehension, the group of learners with L2-Russian achieved higher scores than the group with L2-English. The greatest difference was noticed for grammar (10%). It may suggest the existence of negative transfer between subjects' L2 and L3 in the case of the two typologically close languages (English and German).

Once again, in order not to rely on bare numbers, also this part of the analysis was subject to a two-way ANOVA. Table 4 presents the results for the L2-factor.

Table 4

The results of a two-way ANOVA for the L2 factor

Language skill		Sums of squares	Degrees of freedom	Mean squares	F-ratio	p-values
Grammar	Between	796.875	1	796.875	2.822	0.103
	Within	8,471.307	30	282.377		
	Total	9,268.182	31			
Vocabulary	Between	286.875	1	286.875	0.968	0.333
	Within	8,893.797	30	296.460		
	Total	9,180.672	31			
Reading comprehension	Between	286.875	1	286.875	3.789	0.061
	Within	2,271.249	30	75.708		
	Total	2,558.124	31			
Listening comprehension	Between	7.969	1	7.969	0.062	0.805
	Within	3,859.690	30	128.656		
	Total	3,867.658	31			
Speaking	Between	645.469	1	645.469	4.132	0.051
	Within	4,685.894	30	156.196		
	Total	5,331.363	31			

As can be seen in Table 4, the results of ANOVA again confirmed what had already been concluded from Table 3. As almost all *p*-values were much greater than 0.05, it can be unquestionably said that the differences between the two L2s were statistically insignificant. The only skill which was characterized by a much lower *p*-value was speaking, where it equaled 0.051 and was very close to statistical significance.

However, the numbers and statistics cannot show everything and only an in-depth analysis of the mistakes the study participants made can shed more light on the subject. Especially the vocabulary, speaking, and grammar parts reveal the real reason for the results analyzed above. In the case of vocabulary exercises, the learners with L2-English were characterized by numerous instances of the usage of false friends (deceptive cognates) such as *bekommen* ('be given') instead of *werden* ('become'), hybrids (coinages) such as *all lange Tage* instead of *tagelang*, and calques like *Feuermann* instead of *Feuerwehrmann*, all deriving from the subjects' L2. In the case of grammar, the subjects transferred

rules from their L2 and frequently used hybrids/blends (they especially mixed items while creating verbs—e.g., the stem was English, but German inflectional endings were added—*goest*, *eaten*’ etc.). In the case of speaking, the subjects used code-switching (sometimes only particular words were uttered in an L2, and sometimes—full phrases or sentences) and deceptive cognates. At the same time, the subjects whose L2 was Russian never transferred its properties to L3-German. There were no instances of false friends, calques, hybrids or code-switching. Those learners were more likely to abandon the message, use the semantic extension within an L3 or use the description instead of using an actual word.

The Subjects’ Comments

The study participants were also encouraged to write any comments they wanted, concerning learning German in their company. The selected comments are presented below. They were divided into three categories, depending on the subjects who had written them, in order to facilitate the analysis. All the comments below were written in Polish by the subjects and then translated by the author of the paper.

The subjects with L2-English:

- (1) *I’m always trying to use English. It’s so annoying.*
- (2) *All the words I can think of are in English.*
- (3) *When I speak, I immediately want to switch to English.*
- (3) *English is easier.*
- (4) *It’s difficult because I speak English much more fluently.* (+ 5 similar comments)
- (5) *German is too difficult.*

The <50-year-old subjects:

- (6) *I don’t have time for learning a new language.*
- (7) *Work, home, young children = no time for learning German.* (+ 3 similar comments)
- (8) *I don’t need to speak German – it’s enough that my managers do.*
- (9) *90 minutes weekly is not enough.*
- (10) *I am happy that I have a language course for free.*

The ≥50-year-old subjects:

- (11) *I thought I was too old to learn a new language but it turned out that I am not.*
- (12) *I really appreciate it that I can learn something new.*
- (13) *I am glad that I can participate in German classes as I have to speak with my German counterparts.*
- (14) *Finally, I have time to learn something useful. I also study at home, I listen to CDs in my car etc.*
- (15) *I was scared to have classes with my younger colleagues, but everything is fine.*
- (16) *Grammar is the most difficult thing – especially declension.*
- (17) *I think German grammar is pretty complicated. (+ 3 similar comments)*

As one can realize having analyzed the comments above, the subjects with L2-English are fully aware of the L2-interference which disturbs them and hinders successful communication and language learning. Some of them also prefer English to German. Generally speaking, younger learners frequently claim not to have enough time they could spend on learning German. They are preoccupied by their work, keeping moving up the career ladder, family matters, etc. Moreover, in the company where the subjects are employed, the ability to speak German is necessary mainly for the communication between the managers and supervisors. Since most of the younger subjects do not hold such positions, some of them do not see any need to speak German. There are also subjects who, on the other hand, are willing to learn an L3, but notice an insufficient number of classes which is the reason for their slow progress. The older study participants seem to be more motivated to learn German—both for the professional purposes and for their own satisfaction of doing something pleasant and useful. They may also have more time for learning as, for example, they do not have young children who need a lot of attention. Some of them had been afraid of learning together with their younger colleagues, but during the language course they realized that the age does not have to be a problem.

Summary

In conclusion, it can be said that age is not a crucial factor in TLA, and older learners may be as successful as the younger ones. In the current study no significant statistical difference was found for the age factor, in the case of all the analyzed language skills. Both the ≥ 50 -year-old and the younger subjects achieved similar results. A slightly more visible influence was exerted by the study participants' L2. The study results suggested that a typologically close

L2-English served as a source of negative language transfer in learning German as an L3, but L2-Russian did not affect the process of TLA in this way. Both the analysis of the mistakes the subjects made and the comments concerning learning a third language, provided by the study participants, showed the complexity of TLA. While statistical analyses did not show any significant influence of the two aforementioned factors on subjects' process of learning German, the analysis of their mistakes revealed more details. Although the results obtained during the tests were similar in terms of numbers, the subjects made different kinds of mistakes. While in the case of learners with L2-English L2-transfer was the main source of difficulties, the subjects whose L2 was Russian, were more likely to abandon a message or task or try to find help within their L3. One of the possible explanations for this discrepancy between the groups was the fact that those subjects who had learnt English as an L2, had probably been motivated to learn that language and thus were likely to develop foreign language learning and communication strategies. On the other hand, since Russian was imposed on all Polish pupils under communism, most learners lacked any motivation to learn it and because of that they may not have acquired the appropriate language learning experience which could be later transferred to L3 learning. Another explanation might be connected to Müller-Lancé's (2003) division of multilingual learners into *monolinguals* (i.e., multilinguals behaving like monolinguals), *bilinguoids* (multilinguals characterized by strong cross-linguistic connections between two languages only) and *multilinguoids* (multilinguals characterized by strong cross-linguistic connections between the mental representations of all languages). While the L2-Russian group may have been monolinguals, the L2-English group were rather bilinguals.

Another matter worth looking at in more detail is the study of participants' age. Even though both younger and older learners' results were similar, the reasons why the two groups are successful (or unsuccessful) may be different. Younger learners may have better physiological learning capacities; however, they have more duties connected not only to their job and their efforts to get promoted, but also family responsibilities including young children. Older learners, on the other hand, can be thought to learn more slowly due to the physiological or psychological factors, but at the same time they have more time they can devote to learning since their professional situation is more stable and their familial and parental duties have already decreased. Of importance is also the fact that the results obtained by the in-company learners involved in the study were very similar to those achieved by the groups taught by the researcher in two language schools in the same region of Poland. It suggests that learning/teaching a language in a company environment does not necessarily have to be less effective than in other environments. All those factors considered, it can be undoubtedly stated that learning a language is a really complex phenomenon and cannot be very easily and quickly explained. It is especially true for learning a third or another language.

Naturally, it was just a preliminary study and it would be advisable to analyze other groups of languages, as well as to involve larger groups of study participants from various areas of the country.

References

- Arabski, J. (1997). *Przyswajanie języka obcego i pamięć werbalna*. Katowice: Śląsk.
- Arabski, J. (2006). Transfer międzyjęzykowy. In I. Kurcz (Ed.), *Psycholingwistyczne aspekty dwujęzyczności*. Gdańsk: Wydawnictwo Gdańskiego Towarzystwa Psycholingwistycznego.
- Aram, D., Bates, E., Eisele J., Fenson, J., Nass, R., Thal, D., & Trauner D. (1997). From first words to grammar in children with focal brain injury. *Developmental neuropsychology*, 13, 275–343.
- Bardel, C., & Falk, Y. (2007). The role of the second language in third language acquisition: The case of Germanic syntax. *Second Language Research*, 23(4), 459–484.
- Bardel, C. & Lindqvist, C. (2007). The role of proficiency and psychotypology in lexical cross-linguistic influence. A study of a multilingual learner of Italian L3. *Atti del 6° Congresso Internazionale dell'Associazione Italiana di Linguistica Applicata. Naples 9–10 February 2006*.
- Birdsong, D. (1992). Ultimate attainment in second language acquisition. *Language*, 68, 706–755.
- Bley-Vroman, R. (1990). What is the logical problem of foreign language learning? In S. Gass & J. Schachter, (Eds.), *Linguistic perspectives on second language acquisition*. Cambridge: Cambridge University Press.
- Bohn, O-S. (1998). Wahrnehmung Fremdsprachlicher Laute: Wo Ist das Problem? In S. Felix, J. M. Meisel, & H. Wode (Eds.), *Eine Zweite Sprache Lernen: Empirische Untersuchungen Zum Zweitsprachewerb*. Tübingen: Gunter Narr Verlag.
- Bohnacker, U. (2006). When Swedes begin to learn German: From V2 to V2. *Second Language Research*, 22(4), 443–486.
- Bongaerts, T. (1999). Ultimate attainment in L2 pronunciation: The case of very advanced late L2 learners. In D. Birdsong (Ed.), *Second language acquisition and the critical period hypothesis* (pp. 133–159). Mahwah: Lawrence Erlbaum.
- Bongaerts, T. (2003). Effets de l'âge sur l'acquisition de la prononciation d'une seconde langue. *Acquisition et Interaction en Langue Étrangère*, 18, 79–98.
- Bongaerts, T., Mennen, S., & Van der Slik, F. (2000). Authenticity of pronunciation in naturalistic second language acquisition: The case of very advanced late learners of Dutch as a second language. *Studia Linguistica*, 54, 298–308.
- Breathnach, C. (1993). Temporal determinants of language acquisition and bilingualism. *Irish Journal of Psychological Medicine*, 10, 41–47.
- Broselow, E. (1984). An investigation of transfer in second language acquisition. *International Review of Applied Linguistics (IRAL)*, 22, 253–269.
- Cenoz, J. (2000). Research on multilingual acquisition. In J. Cenoz & U. Jessner (Eds.), *English in Europe: The acquisition of a third language*. Clevedon: Multilingual Matters.
- Cenoz, J. (2001). The effect of linguistic distance, L2 status and age on cross-linguistic Influence in third language acquisition. In J. Cenoz, B. Hufeisen, & U. Jessner (Eds.),

- Cross-linguistic influence in third language acquisition: Psycholinguistic perspectives.* Clevedon: Multilingual Matters.
- Chłopek, Z. (2011). *Nabywanie języków trzecich i kolejnych oraz wielojęzyczność.* Wrocław: Wydawnictwo Uniwersytetu Wrocławskiego.
- Chong, Ch. S. (2013). In-company training versus in-school teaching. Accessed October 28, 2015. Retrieved from https://www.etprofessional.com/incompany_training_versus_in-school_teaching_33266.aspx
- Chumbow, B. S. (1981). The mother tongue hypothesis in a multilingual setting. In J. G. Savard & L. Laforge (Eds.), *Proceedings of the fifth Congress of l'Association Internationale de Linguistique Appliquee, Montreal Auguste 1978.* Quebec: Les Presses de L'Universite Laval.
- Corder, S. P. (1967). The significance of learners' errors. *IRAL*, V/4. Heidelberg: Julius Groos Verlag.
- Crystal, D. (1998). *The Cambridge encyclopedia of language.* Cambridge: Cambridge University Press.
- De Angelis, G. (2005). Interlanguage transfer of function words. *Language Learning* 55, 379–414.
- De Angelis, G. (2007). *Third or additional language acquisition.* Clevedon: Multilingual Matters.
- De Angelis, G., & Selinker, L. (2001). Interlanguage transfer and competing linguistic systems in the multilingual mind. In J. Cenoz, B. Hufeisen, & U. Jessner, (Eds.), *Cross-linguistic influence in third language acquisition: Psycholinguistic perspective.* Clevedon: Multilingual Matters.
- Ecke, P., & Hall, C. J. (2000). Lexikalischer Fehler in Deutsch als Drittsprache: translexikalischer Einfluss auf 3 Ebenen der mentalen Repräsentation. *Deutsch als Fremdsprache*, 1, 31–37.
- Ellis, R. (1994). *The study of second language acquisition.* Oxford: Oxford University Press.
- Falk, Y., & Bardel C. (2010). The study of the role of the background languages in third language acquisition. The state of the art. *International Review of Applied Linguistics in Language Teaching*. 48(2–3), 185–220.
- Falk, Y., & Bardel, C. (2011). Object pronouns in German L3 syntax: Evidence for the L2 status factor. *Second Language Research*, 27(1), 59–82.
- Feldman, R. S. (2009). *Development across the lifespan.* 5th ed. Upper Saddle River: Prentice Hall.
- Flege, J. E., & MacKay, I. (2011). What accounts for “age” effects on overall degree of foreign accent? In M. Wrembel, M. Kul, & K. Dziubalska-Kolaczyk (Eds.), *Achievements and perspectives in the acquisition of second language speech: New Sounds 2010. Vol. 2.* Bern, Switzerland: Peter Lang.
- Gass, S., & Selinker, L. (2008). *Second language acquisition.* New York: Routledge.
- Hammarberg, B. (2001). Roles of L1 and L2 in L3 production and acquisition. In J. Cenoz, B. Hufeisen, & U. Jessner (Eds.), *Cross-linguistic influence in third language acquisition: Psycholinguistic perspectives.* Clevedon: Multilingual Matters.
- Hyltenstam, K., & Abrahamsson, N. (2000). Who can become native-like in a second language? All, some or none? On the maturational constraints controversy in second language acquisition. *Studia Linguistica*, 54, 150–166.
- Ionin, T., Montrul, S., & Santos, H. (2011). Transfer in L2 and L3 acquisition of generic onterpretation. *BULD 35 Proceedings.* Somerville, MA: Cascadilla Press.
- Jackiewicz, A. (2009). Age factor – Stereotypes revisited. In J. Arabski & A. Wojtaszek (Eds.), *Language learning studies.* Katowice: Oficyna Wydawnicza Wacław Walasek.

- Jessner, U. (2006). *Linguistic awareness in multilinguals: English as a third language*. Edinburgh: Edinburgh University Press.
- Kellerman E. (1977). Towards a characterization of the strategy of transfer in second language learning. *Interlanguage Studies Bulletin*, 2(1), 58–145.
- Kinsella, C. (2009). *An investigation into the proficiency of successful late learners of French*. (Unpublished doctoral dissertation) Trinity College Dublin.
- Lammiman, K. (2010). Cross-linguistic influence of an L3 on L1 and L2. *Innervate Leading Undergraduate Work in English Studies*, 2, 274–283.
- Lenneberg, E. H. (1967). *Biological foundations of language*. New York: Wiley and Sons.
- Letica, S., & Mardešić, S. (2007). Cross-linguistic transfer in L2 and L3 production. In J. Horváth & M. Nikolov (Eds.), *UPRT 2007 Empirical Studies in English Applied Linguistics*. Pécs: Lingua Franca Csoport.
- Leung, Y. I. (2003). Failed features versus full transfer full access in the acquisition of a third language: Evidence from tense and agreement. *Proceedings of the 2002 Generative Approaches to Second Language Acquisition (GASLA-6) Conference*. Somerville, MA: Cascadilla Press.
- Leung, Y.-K. L. (2005). L2 vs. L3 initial state: A comparative study of the acquisition of French Dps by Vietnamese monolinguals and Cantonese-English bilinguals. *Bilingualism: Language and Cognition*, 8(1), 39–61.
- Lindqvist, C. (2010). Lexical cross-linguistic influences in advanced learners' French L3 oral production. *International Review of Applied Linguistics in Language Teaching. IRAL*, 48(2–3), 131–157.
- Lipińska, D. (2014a). Second language lexical transfer during third language acquisition. In A. Łyda & G. Drożdż (Eds.), *Dimensions of the word* (pp. 192–213). Cambridge: Cambridge Scholars Publishing.
- Lipińska, D. (2014b). Acquiring L3: Don't you sound L2-like? In O. Majchrzak (Ed.), *PLEJ_3 czyli psycho-lingwistyczne eksploracje językowe* (pp. 129–149). Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
- Lipińska, D. (in press). In-company foreign language training: A teacher's perspective. In Papaja, K. and Can, C. (Eds.), *Language in focus. Contemporary perspectives on theory, research, and praxis in ELT and SLA* (pp. 49–57). Newcastle upon Tyne: Cambridge Scholars Publishing.
- Littlewood, W. T. (1994). *Foreign and second language learning: Language-acquisition research and its implications for the classroom*. Cambridge: Cambridge University Press.
- Llama, R., Cardoso, W., & Collins, L. (2007). The roles of typology and L2 status in the acquisition of L3 phonology: The influence of previously learnt languages on L3 speech production. In *New Sounds 2007: Proceedings of the Fifth International Symposium on the Acquisition of Second Language Speech*, (pp. 313–323), Florianópolis, Brazil: Federal University of Santa Catarina.
- Long, M. H. (1990). Maturation constraints on language development. *Studies in Second Language Acquisition*, 12, 251–285.
- Long, M. H. (2007). *Problems in SLA*. Mahwah: Lawrence Erlbaum.
- Meisel, J. (1983). Transfer as a second language strategy. *Language and Communication*, 3, 11–46.
- Müller-Lancé, J. (2003). A strategy model of multilingual learning. In J. Cenoz, B. Hufeisen, & U. Jessner (Eds.), *The multilingual lexicon* (pp. 117–132). Dordrecht: Kluwer Academic Publishers.
- Muñoz, C., & Singleton, D. (2007). Foreign accent in advanced learners: Two successful profiles. *The EUROSLA Yearbook*, 7, 171–190.

- Newton, J., & Kusmierczyk, E. (2011). Teaching second languages for the workplace. *Annual Review of Applied Linguistics*, 31, 74–92.
- Odlin, T. (1989). *Language transfer: Cross-linguistic influence in language learning*. Cambridge: Cambridge University Press.
- Odlin, T. (2005). Crosslinguistic influence and conceptual transfer: What are the concepts? *Annual Review of Applied Linguistics*, 25, 3–25.
- Penfield, W., & Roberts, L. (1959). *Speech and brain mechanisms*. Princeton: Princeton University Press.
- Piske, T., McKay, I. R. A., & Flege, J. E. (2001). Factors affecting degree of foreign accent in an L2: A review. *Journal of Phonetics*, 29(2), 191–216.
- Porzuczek, A., & Rojczyk, A. (2010). Przegląd interaktywnych programów internetowych wspomagających autonomię ucznia w nauce wymowy angielskiej. In K. Drożdżal-Szelest (Ed.), *Materiały edukacyjne w nauczaniu języków obcych: Teoria i praktyka* (pp. 235–245). Gorzów Wielkopolski: Wydawnictwo Państwowej Wyższej Szkoły Zawodowej w Gorzowie Wielkopolskim.
- Richards, J. C., & Sampson, G. P. (1974). The study of learner English. In J. C. Richards (Ed.), *Error analysis. Perspectives on second language acquisition* (3–18). London: Longman Group Limited.
- Rothman, J., & Cabrelli Amaro, J. (2010). What variables condition syntactic transfer?: A look at the L3 initial state. *Second Language Research*, 26(2), 189–218.
- Scovel, T. (1988). *A time to speak: A psycholinguistic inquiry into the critical period for human language*. Rowley: Newbury House.
- Sikorski, J. (2002). Trening w fonetyce korektywnej języka obcego. In W. Sobkowiak & E. Waniek-Klimczak (Eds.), *Neofilologia. Dydaktyka fonetyki języka obcego. Vol. 2* (pp. 41–58). Płock: Wydawnictwo Wyższej Szkoły Zawodowej w Płocku.
- Singleton, D. (2005). The critical period hypothesis: A coat of many colours. *International Review of Applied Linguistics in Language Teaching*, 43, 269–285.
- Singleton, D., & Lengyel, Z. (1995). *The age factor in second language acquisition*. Clevedon: Multilingual Matters.
- Singleton, D., & Lengyel, Z. (1995). *The age factor in second language acquisition*. Clevedon: Multilingual Matters.
- Singleton, D., & Leśniewska, J. (2012). Age and SLA: Research highways and bye-ways. In *New perspectives on individual differences in language learning and teaching* (pp. 97–113). Berlin–Heidelberg: Springer.
- Singleton, D., & Muñoz, C. (2011). Around and beyond the critical period hypothesis. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning. 2 vols* (pp. 407–425). London: Routledge.
- Singleton, D., & Ryan, L. (2004). *Language acquisition: The age factor*. 2nd ed. Clevedon: Multilingual Matters.
- Tarone, E. (1978). The phonology of interlanguage. In J. Richards (Ed.), *Understanding second and foreign language learning* (pp. 15–33). Rowley, MA: Newbury House.
- Towell, R., & Hawkins, R. (1994). *Approaches to second language acquisition*. Bristol: Multilingual Matters Ltd.
- Treichler, M., Hamann, C., Schönenberger, M., Voeykova, M., & Lauts, N. (2009). Article use in L3 English with German as L2 by native speakers of Russian and in L2 English of Russian speakers. In M. Bowles, T. Ionin, S. Montrul, & A. Tremblay (Eds.), *Proceedings of the 10th Generative Approaches to Second Language Acquisition Conference (GASLA 2009)*. Somerville, MA: Cascadilla Press.

- Wysocka, M. S. (2007). Symptoms of fossilization in advanced learners and users of English. In J. Arabski, D. Gabryś-Barker, & A. Lyda (Eds.), *PASE Papers 2007: Studies in language and methodology of teaching foreign languages* (pp. 96–105). Katowice: PARA.
- Zabrocki, L. (1966). *Językoznawcze podstawy metodyki nauczania języków obcych*. Warszawa: Państwowe Wydawnictwo Naukowe.

Documents

- Council of Europe. (2011). Common European Framework of Reference for Languages: Learning, Teaching, Assessment.

Dorota Lipińska

Der Einfluss vom Alter und von der zweiten Sprache auf Erwerb der dritten Sprache im Körperschaftsmilieu

Zusammenfassung

Die Rolle des Alters als eines den Erwerb von der zweiten Sprache (SLA – eng.: Second Language Acquisition) bewirkenden Faktors war schon seit vielen Jahren von mehreren Psycholinguisten (z.B.: Ellis, 1994) systematisch untersucht, angefangen von der Hypothese der Kritischen Periode (welche zuerst von Penfield und Roberts im Jahre 1959 entwickelt und dann von Lenneberg verbreitet wurde) bis zum heutigen Tage. Es kommt aber auch vor, dass der Alter der Lernenden selbst nicht das einzige Problem und kein Hauptfaktor im Spracherwerbsprozess ist. Der Prozess mag nämlich beim Erwerben der dritten Sprache (TLA – eng.: Third Language Acquisition) viel komplizierter sein, weil man in dem Fall nicht nur mit den die SLA bewirkenden, sondern auch mit vielen anderen für TLA typischen Prozessen zu tun hat.

Der Zweck der vorliegenden Untersuchung war die Analyse des Einflusses vom Alter der Lernenden und der Einwirkung der früher erworbenen Sprache auf das Erwerben der dritten Sprache in einem Körperschaftsmilieu. An der Untersuchung nahmen die bei einer großen internationalen Firma mit Sitz im Südpolen angestellten Freiwilligen teil. Alle waren polnische Muttersprachler im 28–62 Lebensjahr und lernten Deutsch als dritte Sprache, sie unterscheiden sich jedoch voneinander in der zweiten Sprache (Englisch oder Russisch) und im Alter. Man wollte feststellen, inwieweit oben genannte Faktoren die TLA beeinflussen können, und zu dem Zwecke wurden die von den Probanden in den verschiedenen sprachliche Fähigkeiten prüfenden Tests erzielten Ergebnisse miteinander verglichen und die Kommentare der Probanden zu den während des Lernprozesses getroffenen Schwierigkeiten analysiert. Die Probanden waren jedes Mal in zwei Gruppen geteilt – hinsichtlich des Alters oder der zweiten Sprache. Die gezeigten Ergebnisse lassen folgendes feststellen: obwohl das Alter keine große Rolle beim Erwerben der dritten Sprache spielt, ist der Einfluss von der früher erworbenen zweiten Sprache merklich.